

Interim APHIS Plan on Personal Protective Equipment (PPE) in Preparation for Highly Pathogenic Avian Influenza (HPAI)

INTRODUCTION

Highly pathogenic avian influenza is a contagious disease of poultry. Exposure to infected poultry, feces, respiratory secretions, and contact with contaminated surfaces is thought to result in transmission of the virus to humans and subsequent infection; however, this is a rare occurrence. Although there is evidence of limited human-to-human spread of the highly pathogenic avian influenza virus infection, sustained and efficient human-to-human transmission has not been identified.

HPAI experts agree that immediate culling of infected and exposed birds is the first line of defense to both reduce further losses in the agricultural sector and to protect human health. However, culling must be carried out in a way that protects workers from exposures to the virus. This paper describes how APHIS plans to mitigate the risk of exposure for employees who could come into contact with HPAI infected wild birds, poultry, or other animals.

For initial planning purposes, the APHIS AI Coordination Group estimated that in the early phases of HPAI surveillance and response activities, as many as 800 APHIS employees would need to be protected from exposure to the virus. All of these people will need to be medically cleared and fit-tested for PPE prior to direct contact with infected poultry and wild birds.

This plan is aligned with policies and authorities in several laws, regulations, or directives, including:

- APHIS VS Notice 580.18
- APHIS Directive 6800.1
- APHIS Safety and Health Manual
- Occupational Safety and Health Act of 1970, Section 5(a)(1), the General Duty Clause of the Act
- 29CFR1910 OSHA General Industry Regulations

APHIS PERSONAL PROTECTIVE EQUIPMENT (PPE) GOAL

All APHIS employees who may have potential or direct exposure to farmed or wild birds are prepared to safely and appropriately respond to an H5N1 outbreak.

OBJECTIVES

To achieve the PPE Goal, APHIS will focus on three main objectives. Each objective listed below will then be explored in more detail. The 3 objectives are:

- Objective 1 - All specified employees must be medically cleared, fit-tested, and trained in the use of PPE before potential exposure to infected poultry and wild birds or other animals.
- Objective 2 - All specified employees must know what personal protective equipment to have on-hand and where to get it for use in their surveillance activities.
- Objective 3 – In the event of an outbreak, APHIS will have personal protective equipment readily available for employee use.

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OBJECTIVE 1 - All specified employees must be medically cleared, fit-tested, and trained in the use of PPE, before potential exposure to infected poultry and wild birds or other animals.

The Safety, Health, and Employee Wellness Branch (SHEWB/MRPBS/ESD) offers medical monitoring, fit-testing, and training for personal protective equipment through the centrally funded Occupational Medical Monitoring Program (OMMP).

Medical clearance

The OMMP is administered through an interagency agreement with Federal Occupational Health (FOH), an Agency of the Department of Health and Human Services (DHHS). Previously, entry into the OMMP was initiated through the APHIS Form 29. In collaboration with FOH, we have developed an expedited process for completing a large number of medical clearances in as a timeframe as possible. Once managers have identified the employees they feel are candidates for medical clearance to use a respirator and respond to an outbreak of HPAI (H5N1), we ask that they compile a list of names, locations of the employee, email address, and their phone number, along with their supervisor's name, email address, and phone number. The lists should then be collated by Program and forwarded to the Branch Chief for SHEWB, Thomas R. Walker, MD (Thomas.R.Walker@aphis.usda.gov). Dr. Walker will then forward the list(s) to FOH in San Francisco, CA. The FOH nurse advisor, Judy Ma, will then contact the nearest FOH clinic to the employee and ask the clinic to schedule an appointment for a medical clearance examination.

Medical clearance requires completion of an OSHA Respirator Medical Evaluation Questionnaire for review by the healthcare provider. Once the questionnaire is reviewed, a history and physical examination will be done by the healthcare provider. This will include (but is not limited to) hearing; vision; spirometry (breathing capacity); electrocardiogram (EKG); basic blood and urine tests; and single-view chest x-ray. A tetanus-diphtheria booster will be given if indicated by the employee's history.

Fit-testing

After medical clearance is complete, the employee needs to be fit-tested to use the respirator. Fit-testing is the process of assuring that a respirator provides an adequate seal with the employee's face. APHIS will be utilizing a quantitative fit-testing process. This provides the tester with specific data indicating adequate protection of the employee using the respirator.

Training

Employees must be trained in the proper use of the respirator. Training will occur at the time of fit-testing. Contact Peter Petch at 301-734-5383 to arrange for fit-testing and training.

OBJECTIVE 2 - Specified employees must know what personal protective equipment to have on-hand and where to get it.

Many employees may be carrying out surveillance activities as a part of their work assignment. All employees who may be directly exposed to HPAI-infected poultry or wild birds should have the following properly sized outer garments on-hand and ready to use. Materials and equipment that are needed for this purpose will not be stockpiled; instead, this equipment should be purchased by your program out of your normal funding and allocations. Appendix A contains an item list, along with a vendor source for the material and equipment you may wish to purchase. Individual offices may order these products with a credit card for purchases up to \$2500. For any purchase exceeding \$2500, you must submit an IAS request.

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What you need

- Protective clothing capable of being disinfected or disposed, preferably **coveralls** (including an impermeable apron), or surgical gowns with long cuffed sleeves (with an impermeable apron). The outer garments to be selected depend on the nature of the work to be done. If cleaning and disinfection are tasks that will be involved, the outer garments must be more durable and less permeable. For those activities, TyChem coveralls and boots covers will be used. For all other activities, Tyvek coveralls and boot covers can be used.
- **Gloves** capable of being disinfected or disposed. Nitrile disposable gloves will be used to avoid the issue of latex allergy.
- **Eye protection** such as splash goggles or face shields.
- Disposable **head covers**
- **Boots** or protective foot covers that can be disinfected or disposed
- **Chem-Tape®** or duct tape
- **Decontamination** equipment.

In addition, the employees **must** use a disposable particulate **respirator** (N-95 or higher protection) that has been fit-tested. The following selection of respirators will satisfy all of the requirements of 29CFR1910.

- 3M 8210, N-95
- 3M 8271, N-95
- 3M 8511, N-95
- Moldex 2700, N-95
- Survivair Full-Face Respirators, 4000 Series
- MSA Millenium Full-Face Respirators
- MSA Advantage 3000 Full-Face Respirators

How much you need

Foreign Animal Disease Diagnosticians (FADDs) should have, at a minimum, a **3 day supply** of this equipment on hand and available to use at a moment's notice (i.e., in the trunk of the car).

Wildlife Services Biologists should have a minimum 3 day equipment supply.

VS Area Office AVICs should have a 1 week equipment supply for at least 10 FADDs to get re-supplied quickly.

Wildlife Services State Offices should have a 1 week equipment supply for at least 5 employees.

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OBJECTIVE 3 – In the event of an outbreak, APHIS will have adequate PPE supplies in stock and ready to deliver to outbreak sites.

APHIS is setting up “pre-positioning” contracts to ensure that PPE will be available to Incident Command Posts (ICP) when we move into a response mode. The following will be available from the National Veterinary Stockpile (NVS) for immediate distribution:

Strike Packs (31)

The NVS will contain a number of PPE “strike packs” which can be deployed within 24 hours to an HPAI outbreak site in the United States. Strike packs contain generic supplies and materials, and should be one of the first things delivered to the incident site. Strike packs are designed to provide **PPE for 10 people for 10 days** who respond as strike team members during an outbreak. Strike packs have been procured from the AI funding and will be ordered through the Incident Command Posts (ICP) set up to respond to outbreaks. See Appendix B for equipment in the strike packs.

Additional Safety and Health PPE Supplies (Push Packs)

Additional Safety and Health PPE supplies will be maintained in the NVS for deployment by the Incident Command Post to the site of an emergency outbreak. “Push Packs” are designed to support a more sustained effort after the more immediate response has begun, if and when “strike pack” supplies have been exhausted, and when more equipment is needed for a larger team. “Push Packs” include fit-tested masks, PPE, safety equipment, and decontamination supplies for **100 people for 10 days**. The numbers are based on changing PPE 5 times per day. See Appendix for a list of this additional equipment.

APHIS will utilize the procurement instruments set in place during the “pre-positioning” phase to supply the needs at the Incident Command Posts. APHIS will request emergency funding once H5N1 has been confirmed and the Agency is in a response mode. This request will include funding for the large supplies of PPE needed by APHIS and other entities assisting in the response.

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APPENDIX A Surveillance Materials and Equipment Inventory List

Item and Vendor:		Size Available:	Stock Number:	Unit of issue:	Price:
Long handle Weiler brush 44016 scrub brush		20 12/MIN	M26235	136	\$5.84 ea
	Name:	Noble Sales Company			
	Type of Business:	S W			
	GSA Schedule No:	GS 06F-0032K			
	Address:	104 Longwater Dr., Norwell, MA 02061			
	Website:	http://www.noblesales.com			
Trash bags, red, Bio hazard, 50 gallons		50 gallons	8105-01-517-3664	310 bx	\$310 25/box
Gloves disposable nitrile medium powder free latexi		Medium	8415-0-492-0179	248 bx	\$7.43 100/bx
Gloves disposable nitrile large powder free latexi		Large	8415-01-492-0178	2170 bx	\$7.43 100/bx
Gloves disposable nitrile extra large powder free latexi		extra large	8415-01-492-0180	155 bx	\$7.43 100/bx
	Name:	GSA			
	Type of Business:	S			
	GSA Schedule No:	Global Supply			
	Address:	1900 River Rd., Burlington, NJ 08016			
		ph 1-800-488-3111			
	Website:	www.gsaadvantage.gov			
Powered air purifying respirators			Z888-00-000-8001	310	\$629.29 EA
Battery charger for NiCad battery			Z888-00-000-8007	310	\$116.49 EA
Canister filters packaged			Z888-00-000-8005	3100	26.09 6/case
NiCad batteries (extra for the PAPR unit)			Z888-00-000-8005	2670	\$173.43
	Name:	Global Protection			
	Type of Business:	S			
	GSA Schedule No:	GS 07F 6028P			
	Address:	5 East Stow Road ste h, PO Box 1399			
		Marllton, NJ 08053			
		ph 1800-957-8955			
	Website:	www.protectivesuits.com			

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APPENDIX A Surveillance Materials and Equipment Inventory List (continued)

Chemical suite seam tape	2"X60 YDS, Yellow	Z888-00-000-8071	400 roll	\$21.69
EMS Shear,Olive, 7-1/4"	Olive, 7-1/4"	Z888-00-000-8072	100 ea	\$2.39
Shipping and handling			1	\$196.75
	Name:	Lab Safety Supply		
	Type of Business:	L		
	GSA Schedule No:	Open market		
	Address:	401 South Wright Road, PO Box 5277		
		Janesville,WI 53546		
		Ph 1800-356-0783		
	Website:			
Montaqua water, 1 liter	12 bottles a case	Z888-00-000-8067	233 case	\$ 11.70
Freight			1 EA	\$ 1,695.12
	Name:	Silver Wolf Enterprises		
	Type of Business:	M, SD, native owned		
	GSA Schedule No:	GS-07F-0686N		
	Address:	900 12th Street N		
		Great Falls, MT 59401		
	Website:	www.silverwolfenterprises.com		
five gallon portable water container		Z888-00-000-8065	31	\$34.85 ea
5' round poly wading pool, big wander	5' round	Z888-00-000-8063	93	\$12.82 ea
2 gallon metal tank sprayer	2 gallon	Z888-00-000-8051	310	\$19.44 ea
5 gallon plastic pail of handling heavy materials	5 gallon	Z888-00-000-8066	31	\$6.29 ea
Lemon lime, orange powered Gatorade	2 1/2 gallon pkgs 32/case case		31	\$99.86 case
yellow caution tape with black print	Rolls	Z20175	480	3.15 roll
	Name:	Noble Sales Company		
	Type of Business:	S		
	GSA Schedule No:	GS 06F 0032K		
	Address:	104 Longwater Dr. Norwell MA 02061		
	Website:	www.noblesales.com		

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Aprons, Disposable Polyethylene,	32X50 WHITE	Z888-00-000-8051	155	\$ 8.31 pak
	Name:	S & B Computer & office products		
	Type of Business:			
	GSA Schedule No:	GS 14F 0017M		
	Address:	747 Pierce Road Clifton Park, NY 12065		
		Ph 1800-254-8089		
	Website:	WWW.SBCOMPUTERS-OFFICE.COM		
HAND SANITIZER, PURELL	4 fl oz	Z888-00-000-8059	233	32.70 case
	Name:	Gojo Industries Inc.		
	Type of Business:	S		
	GSA Schedule No:	GS 07F 0201K		
	Address:	One GOJO Plaza suite 500		
		P O Box 991 44309		
		Akron, OH 44309		
		ph 1800-321-9647 x 6676		
	Website:			
Portable Pressure washer	400 PSI	Z888-00-000-8061	62	\$ 1127.78 ea
Boot Scraper		Z888-00-000-8060	68	11.79 ea
5 gallon gas can	5 gallon	Z888-00-000-8070	100	9.56 ea
	Name:	Noble Sales Company		
	Type of Business:	S		
	GSA Schedule No:	GS 06F 0032K		
	Address:	104 Longwater Dr. Norwell, MA 02061		
	Website:	www.noblesales.com		
Tychem suites & boots Cvrs		various	62310	
	Name:	Fastenall Co.		
	Type of Business:	O		
	GSA Schedule No:	GS06F0039K		
	Address:	2001 THEURER BLVD, PO Box 978		
		Winona , MN 55987		
		ph 507-453-8738		
	Website:			

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APPENDIX B First Response “Strike Pack” Inventory List

Strike Pack Inventory		
Item	Quantity/Pkg.	Number
Sprayers, 2 gallon	1	10
Impermeable Aprons, polypropylene	100/Box	5
Tychem C Coveralls, small	1	500
Tychem C, medium	1	500
Tychem C, large	1	500
Tychem C, extra large	1	500
Tychem C, extra extra large	25/case	20
Tychem C, boot covers	25/case	20
Virkon (housed in warehouse)	1 lb./Box	50
Trash Bags, disposable, 40-45 gallon	100/Box	10
Purell® Hand Sanitizer, 4.25 oz. bottle	24/Box	5
Gloves, disposable nitrile, small	100/Box	5
Gloves, disposable nitrile, medium	100/Box	8
Gloves, disposable nitrile, large	100/Box	70
Gloves, disposable nitrile, extra large	100/Box	5
Boot Scrapers	1	3
Chem-Tape®	1	15
Portable Pressure Washer, gas-powered w/20-gallon tank	1	2
Powered Air Purifying Respirators, Breathe-Easy 10 w/Butyl Rubber Hood (includes hood, breathing tube, power unit, batteries, battery chargers, and air flow meters)	1 complete unit	10
Combination Air-Purifying Cartridge	6/Box	100
Kiddie Pool 5 foot diameter 18 inch wall (appx)	1	3
5 gallon mixing container	1	1
5 gallon potable water container (Drink dispenser)	1	1
1 Case sport drink mix	1	1
Case bottled water	1/cs	5

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APPENDIX C “PUSH PACK” Inventory List

Personal protective equipment, safety equipment, and decontamination supplies for 100 people for 10 days will be deployed to the incident site. They will initially be deployed from the National Veterinary Stockpile after the first response strike packs (Appendix B) have been deployed. These supplies in the table below are based on changing PPE 5 times per day.

Item	Quantity/Pkg.	Number
Eye Wash Station, fend-all, Pure Flow 1000	1	1
Eye Wash Station, Fluid Cartridges	2/Pkg.	4
Eye Wash Station, Cart	1	1
First Aid Kits, 16 Unit ANSI Z308.1 2003	1	100
Sprayers, 2 gallon	1	50
Motor Vehicle Accident Kits		10
OWCP Kits (CA-1, CA-2, etc.)		10
Face Shields, disposable	24/Pkg.	200
Fire Extinguishers, ABC, 1 lb.	1	50
Portable First Aid Station	1	1
Impermeable Aprons, polypropylene	100/Box	50
N-95 Respirator, 3M 8210	20/Box	200
N-95 Respirator, 3M 8511	10/Box	100
N-95 Respirator, 3M 8271	10/Box	100
N-95 Respirator, Moldex 2700	20/Box	100
N-100 Respirator, 3M 8233	1	500
P-100 Respirator, 3M 8293	1	250
P-100 Respirator, Moldex 2360	5/Box	100
Coverall, Dupont Tyvek, disposable, small	25/case	200
Coverall, medium	25/case	600
Coverall, large	25/case	600
Coverall, extra large	25/case	600
Coverall, extra, extra large	25/case	200
Tychem C Coveralls, small	1	500
Tychem C, medium	1	500
Tychem C, large	1	500
Tychem C, extra large	1	500
Tychem C, extra extra large	25/case	20
Tychem C, boot covers	25/case	20
Shoe Covers, Tyvek® Standard	25/Pkg.	200
Head Covers, polypropylene 21”	100/Box	50
Virkon (housed in warehouse)	1 lb./Box	50
Trash Bags, disposable, 40-45 gallon	100/Box	100
Purell® Hand Sanitizer, 4.25 oz. bottle	24/Box	50
Gloves, disposable nitrile, small	100/Box	50
Gloves, disposable nitrile, medium	100/Box	80
Gloves, disposable nitrile, large	100/Box	100
Gloves, disposable nitrile, extra large	100/Box	40
Boot Scrapers	1	3
Ear Plugs, OSHA Comply Pack	500/Set	2
Hard Hats, MSA V-Gard®, vented	1	25
Chem-Tape®	1	100
Portable Pressure Washer, gas-powered w/20-gallon tank	1	2